



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/942,842	08/31/2001	Masataka Aoki	381NP/50366	8533

7590 04/16/2003

CROWELL & MORING LLP  
INTELLECTUAL PROPERTY GROUP  
P.O. BOX 14300  
WASHINGTON, DC 20044-4300

EXAMINER

PALABRICA, RICARDO J

ART UNIT	PAPER NUMBER
----------	--------------

3641

DATE MAILED: 04/16/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/942,842

Applicant(s)

AOKI

Examiner

Rick Palabrica

Art Unit

3641

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 24 February 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) 4-12 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

### Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

### DETAILED ACTION

1. Applicant's Request for Continued Examination, including an amendment of claims 1-3, is acknowledged.

#### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ito et al. (JP-8-262190) in view of the combination of U.S. Nuclear Regulatory Commission Generic Letter 78016 and Brammer, Jr. (U.S. 4,053,356). Aoki discloses the applicant's claims except for the guide for the reactor pressure vessel.

Ito et al. disclose a method for replacement of a reactor pressure vessel by providing a temporary opening in the roof of the nuclear reactor building and providing a means for hoisting the vessel out of the building.

U.S. Nuclear Regulatory Commission Generic Letter 78016 teaches control of heavy loads near spent fuel in a storage pool. This letter teaches that movement of heavy loads (e.g., shipping cask or shielding block) over spent fuel must be controlled to assure that potential for a handling accident that could result in damage to spent fuel is minimized.

Brammer, Jr. teaches an apparatus and method for aligning a fuel handling equipment and guide for removal of a fuel assembly from the reactor core. He teaches that the device is critical in providing alignment in cases where they may exist forces that could cause misalignment, e.g., in floating nuclear power plants (see Abstract and Fig. 1). His device includes a manipulator crane 46 with a vertical extension 52 comprising a stationary mast 54 and a telescoping guide tube 56. The telescoping guide tube is permitted vertical movement by rollers 58 between it and the mast 54. Fuel elements are retrieved and telescoped into the stationary mast section 54.

One having ordinary skill in the art would have recognized that the purpose of the device of Brammer, Jr. is to guide a nuclear component, i.e., fuel during the process of moving it from an original location, i.e., in-core, to another location, i.e., off-core, during refueling operations. This artisan would also recognize that the device of Brammer, Jr. provides a means to minimize fuel-handling accidents.

Applicant's claim language, "protective measure having a penetrating path therein" reads of Brammer, Jr.'s structure 52 comprising of mast 54 and guide tube 56. As to the limitation in claim 3 regarding a cushioning member inside the penetrating path, this is a matter of optimization within prior art conditions or through routine experimentation (see MPEP 2144.05 II.A).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the apparatus, as disclosed by Ito et al., by the teachings of U.S. Nuclear Regulatory Commission Generic Letter 78016 and Brammer, Jr., to include a protective measure having a penetrating path and cushioning

Art Unit: 3641

member, to gain the advantages thereof (i.e., provide adequate guide and protection), because such modification is no more than the use of well-known expedients of guidance and protection during movement of critical nuclear components.

For the benefit of the applicant, Aoki (JP-11311693) is another prior art that teaches removal of a nuclear pressure vessel from a reactor building. Also, Neuenfeldt et al. (4,269,660) is another prior art that teaches a device for protecting a nuclear component, i.e., nuclear fuel, during refueling operations.

### ***Conclusion***

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Reference V further illustrates prior art.


4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rick Palabrica whose telephone number is 703-306-5756. The examiner can normally be reached on 7:00-4:30, Mon-Fri; 1st Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Carone can be reached on 703-306-4198. The fax phone numbers for the organization where this application or proceeding is assigned are 703-305-7687 for regular communications and 703-305-7687 for After Final communications.

Art Unit: 3641

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1113.

RJP  
April 12, 2003

  
PETER J. RUPP  
EXAMINER  
ART UNIT 3600